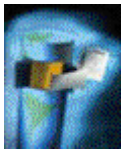

Oracle WebDB Portal 3.0 - beta

Product Overview

WE-30-WP-OVERVIEW
March 2000

ORACLE

PRODUCT SUMMARY

Oracle WebDB Portal is a complete solution for building, deploying and maintaining self-service, integrated enterprise portals. It combines an extensible framework for standardized application access with a set of self-service tools for customizing the portal experience, publishing and managing information, and accessing dynamic data. WebDB Portal connects employees, partners and suppliers with the information they need and allows them to tailor their portal view to the way they work. Using WebDB Portal, organizations are able to expose applications to users and provide easy access to business critical information in a standard format, while allowing new applications and data sources to be added as required.

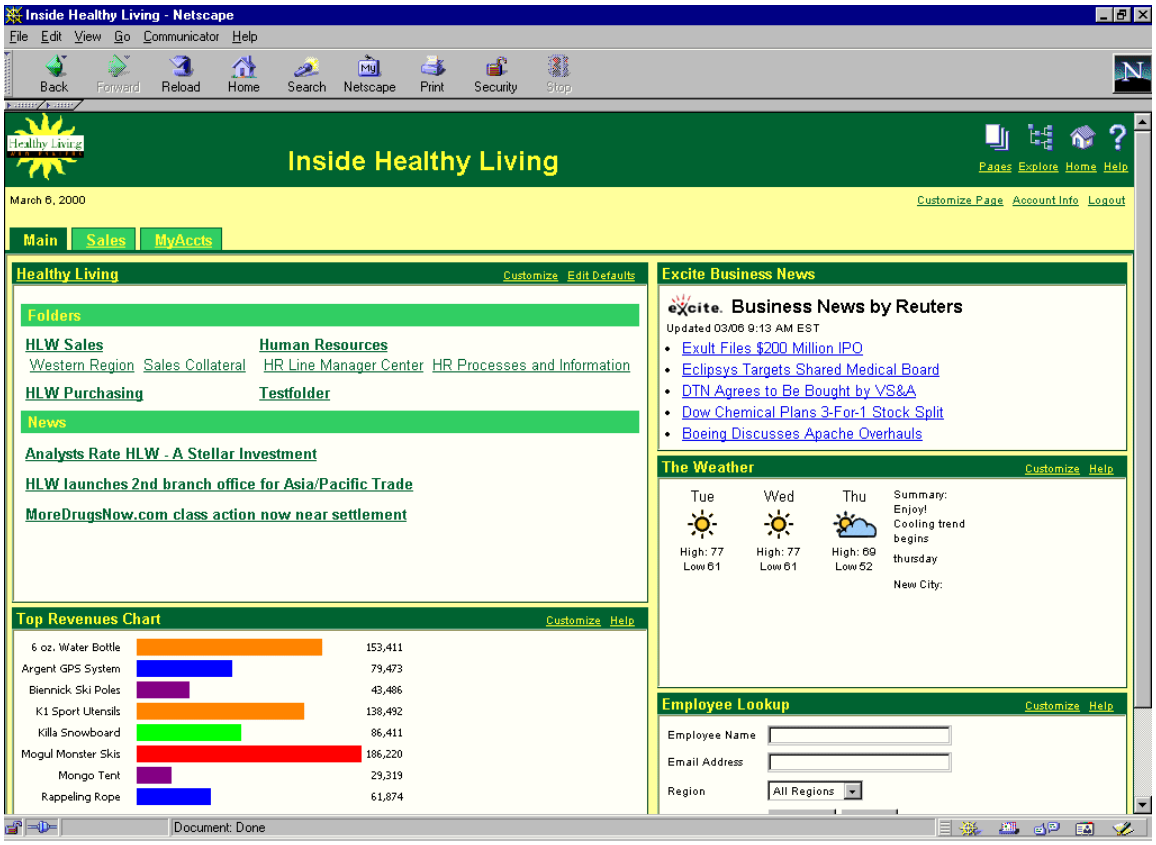

Figure 1. Oracle WebDB integrates structured, unstructured and Internet data into a single, personalized view.

WHY PORTALS?

The explosive growth of the Internet and Web-technology has led to a new set of opportunities and challenges to today's businesses. However, organizations are discovering that their vision of free-flowing information over corporate intranets is becoming a nightmare that consists of information overload, system management complexities, and often disparate and conflicting data. Shortcomings in technology and implementation have largely led to solutions that have had minimal impact on users' core job functions. As a result, much of the potential revenue, productivity, and efficiency gains have not been fully realized.

In response, these organizations are turning to Internet-style portals for their intranets. These portals, or "Enterprise Information Portals" (EIPs), are emerging as an essential problem-solving mechanism that provide a single source of interaction with all corporate information. In this way EIPs become the focal point for conducting day-to-day business, providing access to services for instantly available, personalized, job-based information; forums for groups to exchange, analyze, and discuss ideas; automation of business processes transparently integrated into daily activities; and time-saving applications.

ORACLE WEBDB PORTAL

WebDB Portal is the foundation product for Oracle's EIP product offering. With WebDB Portal, organizations have a means to provide employees, partners and suppliers with consistent, efficient access to enterprise information and the tools they need to be more effective in their daily business tasks. WebDB accomplishes this by providing:

- *Single Point of Interaction* - an extensible portal framework provides integration and standardized access to enterprise information, while a flexible working environment allows organizations, departments, and individual users to personalize their portal experience,

- *Integrated Set of Portal Services* - self-service portal services empower users and developers to organize and publish information and build applications, and

- *Complete Deployment and Administration Environment* - Web-based environment leverages the power of Oracle 8i and allows IT to easily and effectively manage portal deployment and administration.

SINGLE POINT OF INTERACTION

Relevant enterprise information sources can take a wide variety of forms: a Web site on the Internet, a legacy application, a document repository, an intranet Web site, etc. The sheer volume of information and incompatibility among these sources overloads most users; their inflexible, fragmented presentation is frustrating and confusing. In addition, keeping the sources up to date and in synch can easily overwhelm the technology support staff. WebDB Portal, as a single point of interaction, addresses these issues by bringing information together: better connecting users with their sources of information, while providing the flexibility needed to accommodate the way individuals work and deal with information.

SEAMLESSLY ACCESS ENTERPRISE INFORMATION SOURCES

WebDB Portal, as a truly enterprise-level EIP, bridges the largely disconnected worlds of dynamic data, documents and Web sites using re-usable information components called "portlets". A portlet is a live area of HTML or XML/XSL which represents an information source in a standardized, consistent, and secure manner. Portlets summarize, promote or provide basic access to an information source for a group of users who find business value in the information. For example, a sophisticated human resource application might expose a set portlets to employee users at large which allow them to look up vacation balances or modify tax withholding. Another portlet may allow managers to publish or retrieve information from an employee skills repository. Users never see nor care about the underlying application or technology; they simply interact with information contained within or accessed from the portlet.

Portlets can be created to access nearly any type of Web accessible information – from Internet news and stock quotes, files published on the corporate intranet to reports on data managed by corporate applications. Access is not limited to "public" information and can include secure, password-protected sources through integrated portal authentication and single-sign on.

WebDB Portal customers can take advantage of a library of pre-existing portlets for their portal implementation and use. WebDB Portal is bundled with a set of supported portlets for web publishing, application development and portal administration. In addition, Oracle has created a partner initiative to support a growing community of independent software vendors (ISV)s and Internet content providers who are creating standard, supported portlets to their application and services.

Figure 2. Portlets provide secure access to an underlying application or service.

Custom portlets can be created by any application or information source "provider" who wishes to expose their application to users through WebDB Portal. To do so, providers simply develop portlet and provider procedures, according to published API specifications, and register these procedures with WebDB. Developers have the choice of implementing their procedures as PL/SQL packages or Java servlets and can take advantage of WebDB's Portlet Development Kit (PDK) to speed development and testing time.

To accommodate the diversity of information sources and underlying architectures, WebDB portlet APIs support a wide range of implementation options: from a simple wrapper that calls out to existing functionality to a complex implementation of all UI and logic within the portlet procedures. In addition, providers can take advantage of a set of standard services for functions such as user preference management, session management, activity logging, translation, security and error handling.

CREATE PERSONAL VIEWS OF ENTERPRISE APPLICATIONS AND INFORMATION

WebDB Portal manages the portal user experience through the creation and administration of portal pages. Pages can take on a variety of forms; each is dynamically assembled and formatted according to the portlets and layout defined for that page.

Any user can create and/or customize a portal page - a simple wizard defines the layout /style of the page, the portlets to be placed on the page and page access privileges. Portal page layout options allow a user to specify a wide range of page geometry to define portlet behavior. Portlets within a page region can be

aligned vertically, horizontally or stacked into tabbed regions. Page styles allow users to specify text and color settings for the portal page, either by choosing from a pre-defined style or creating a new style. For installations where corporate look-and-feel must be maintained, portal-level settings allow the portal administrator to limit to specific, approved styles and layouts. In this way, WebDB users can personalize their portal experience to suit the way they work and the applications that they access.

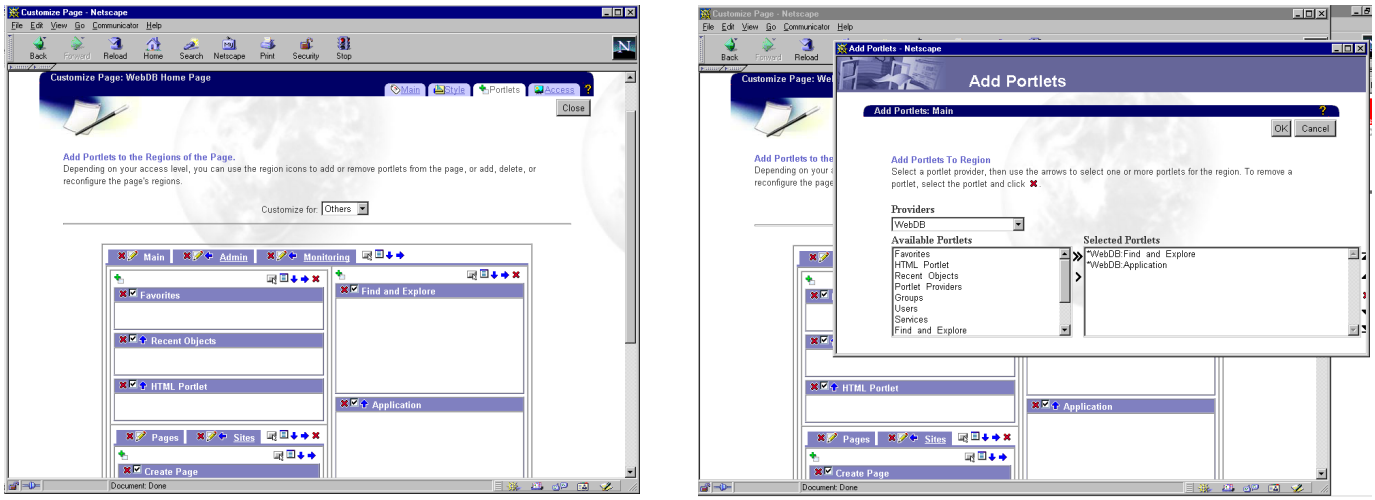

Figure 3. WebDB Portal allows users to easily create and personalize portal pages.

Access to content and applications within the portal are governed by security privileges at the page and portlet level using WebDB security (users and user groups). Each user has the ability to access public pages as well as those portlets and pages that he/she has been granted access privileges.

Portal administrators use this same page creation mechanism to create and publish default "public" pages, page templates (that individual users can further customize) or line of business specific pages. In this manner, portlets that access applications or content sources that are particularly meaningful to particular sets of users can be assembled, published within a portal page, and made available immediately. For example, a sales portal page could expose a set of portlets that provide sales-unique news, customer sales information from internal databases, contact management system, a collaborative workspace, etc. all organized and accessible from a single portal page.

INTEGRATED SET OF PORTAL SERVICES

In addition to accessing and personalizing access to enterprise data, WebDB Portal incorporates self-service features that allows portal users and administrators to directly manage their information. These services give end users control and responsibility for their information and IT professionals the tools to better serve end user requirements. Both are critical requirements in an EIP deployment that seeks to realize greater productivity and efficiency from end-user self-service.

SECURELY ORGANIZE AND PUBLISH CONTENT

WebDB empowers users to share and manage information by providing an integrated set of features for document publishing, file upload, page formatting, and access control. Creating an informational "item" is simply a matter of the information "owner" following a series of steps within a wizard that define the desired item attributes (title, description, author, etc.). The items themselves can consist of a wide range of informational content including single/multiple files, simple text, URLs, image maps, PL/SQL procedures, and dynamic application components. File-type items such as documents are simply uploaded into the portal via a standard web browser and managed within the underlying Oracle 8i database.

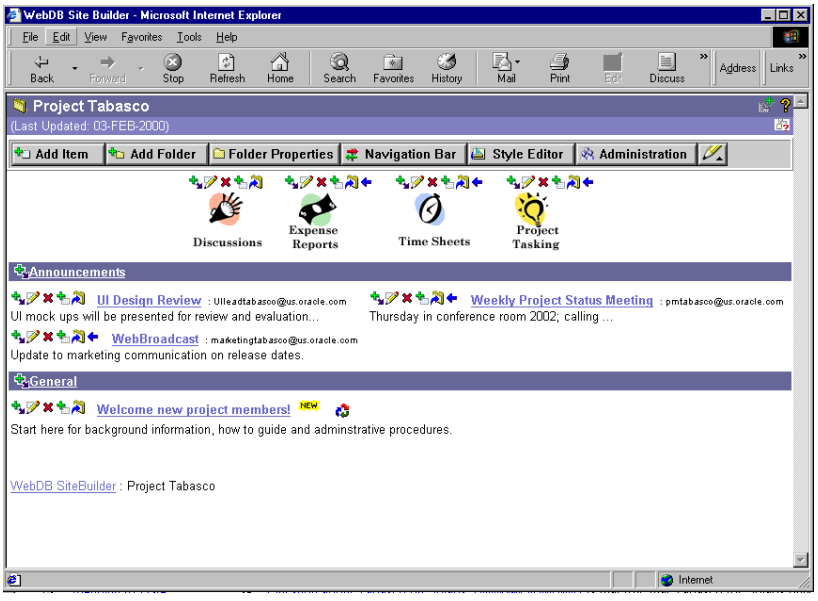

Figure 4. WebDB uses intuitive controls to allow information owners to create, edit, format, publish and manage their information.

Pre-defined item "categories" and "perspectives" provide a powerful classification mechanism for information owners to group similar or related items. Additional features such as item version control, check-in/check-out, expiration, and automatic indexing support collaborative document creation, ease content management tasks and make finding published items very easy.

Information owners create items in secure Web pages called "folders" that are organized into published "sites". Folder "owners" have the ability to define layout geometry and font/color style for the folder and specify the way that items contained in the folder are displayed to users. The layout, style and display options available to folder and information owners can accommodate a wide range of intended uses – from a simple URL title hyperlink to a complex item that reveals all the attributes about the item. If strict control over the item of folder is required, the information owner can assign various levels of privileges to the items and folders that they own, ranging from no access to full ownership rights. When security is defined in this manner, only users with the appropriate rights are allowed to view or modify the content.

Folders not only secure information; they also provide structure within the site using a folder, sub-folder paradigm. Folder owners can build out a folder, sub-folder hierarchy that organizes their items in a logical manner and enforces the desired content security. Folder owners may also choose to publish one or more folders as a portlet to allow portal users to create portal pages which contain folder content. In these ways folders provide the portal administrator and individual information owners a wide range of options for item/folder access and how items appear within a folder.

SEAMLESSLY PUBLISH YOUR DATA ON THE INTRANET

In addition to file-type content, information from Oracle databases can be easily integrated into a WebDB Portal. Oracle WebDB includes a library of data-driven components that can be used to interact with the Oracle database and then seamlessly embed information within a portlet on a portal page. Components include Javascript-enhanced data entry forms, columnar reports which output in HTML, plain text or MS Excel formats, customizable HTML bar charts, and several other components useful for publishing data from an Oracle database.

A wizard-based, declarative design environment guides developers through the steps of defining an application data model and building dynamic HTML application components. No scripting or in-depth knowledge of SQL syntax is required and the component author can construct complete applications without coding. Experienced users can insert their own SQL statements to drive their components with customized logic.

While powerful on their own, these WebDB components can be connected to produce complete web-based database applications. For example, an employee expense chart may link to a report that details individual expenses. In turn, that report might link to a form that allows an accounts payable representative to see and modify the details of a particular entry. Creating such an application is made easy through the use of an explorer tool that allows developers to easily access, take action (browsing, granting privileges, exporting and deleting) and keep track of all the pieces that make up an application, including components and database objects.

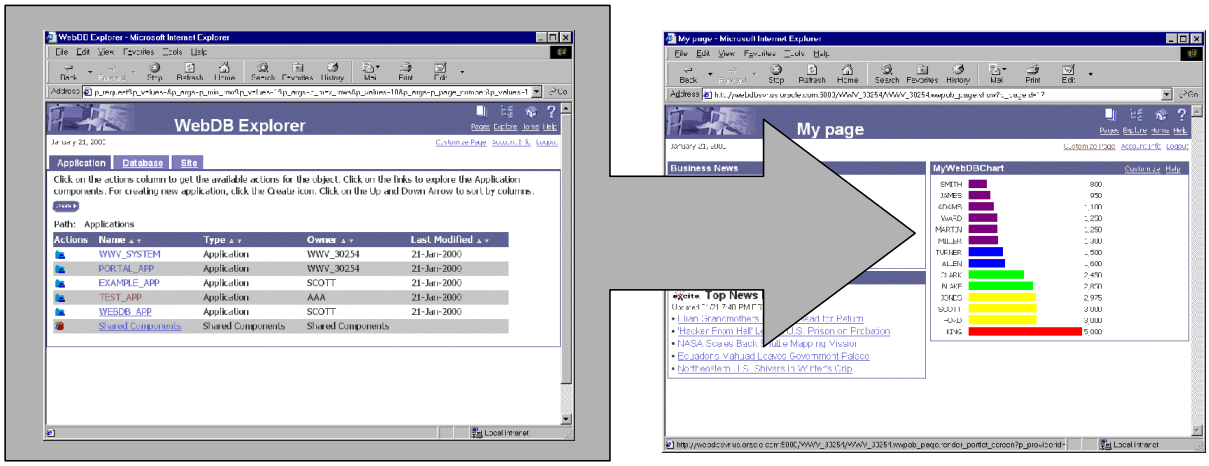

Figure 5. Applications, components and their associated database objects are created and managed within WebDB and can be exposed to users as portlets.

COMPLETE DEPLOYMENT AND ADMINISTRATION ENVIRONMENT

Oracle WebDB provides power through simplicity because it is based on the open standards of the Internet. Instead of requiring users to install and learn large, complex programs, Oracle WebDB insulates this unnecessary complexity from its users and centralizes its maintenance by storing everything it uses and creates in the Oracle 8i database. Wizards and dialog boxes simplify administrative functions. A proven, three tier architecture can support a wide range of Web architectures and scale to complex requirements.

UNIVERSALLY ACCESSIBLE WITH LOW TOTAL COST OF OWNERSHIP

WebDB Portal is completely Web-based, thus can be implemented with a minimal cost of ownership. The only client-side software needed to use Oracle WebDB is a standard web browser. Users simply point their browsers to a URL; no additional client-side software is required. Browser-only is not limited to simple access: all facets of Oracle WebDB, including portal development, deployment, administration, and configuration are performed through the browser.

Oracle WebDB literally runs inside the Oracle 8i database taking advantage of the reliability, availability, and scalability expected from the Oracle database platform. This eases integration into existing IT environments and provides the ultimate flexibility in hardware platforms and architecture options. There is no need to install software on every machine being used, no need to use FTP to remotely manage files, and no need to have a complex deployment plan every time a developer fixes a bug and needs to upgrade all the deployment systems.

Having all your data, content, and applications in one place is a major advantage because it requires less maintenance than having multiple proprietary systems. Backing up the database, for example, means that the data, content, and applications are all backed up in one step. Also, any performance enhancements for the database such as more memory or configuration tuning automatically apply as well.

INTUITIVE INSTALLATION AND ADMINISTRATION

A simple install wizard automatically installs and creates an operational WebDB Portal environment within an Oracle 8i database instance. Once created, a portal administrator can quickly and easily define user accounts and define access privileges to pre-defined user, administrative and developmental portlets.

Note that all configuration, development and end user personalization is accomplished via portlets contained within WebDB portal.

Users simply identify themselves as an authorized portal user by clicking a login link created as part of the site. Once the user logs in, the site reveals pre-defined pages and portlets and links required to personalize their portal experience. Users familiar with surfing the web will be able to become productive very rapidly without special training or technical expertise.

Administration of WebDB Portal is fully portlet-enabled. All major create and manage functions including users/user groups, portal page styles/templates, portlet/provider registration, single-sign on, and portal settings for listener/gateway and search function are accessed as portlets on a portal page, each capable of enforcing unique security privileges. In this way, administration of the portions of the portal can be delegated, without compromising overall portal security.

HIGHLY FLEXIBLE, SCALABLE AND SECURE PRODUCT ARCHITECTURE

Oracle WebDB is designed around a three-tier architecture that allows essentially any browser and any Web server to connect to Oracle WebDB Portal. This flexible architecture allows each component (browser, web listener, Oracle database and WebDB) to be upgraded individually based on need. To provide a clean, complete, and extremely simple out-of-the-box experience, Oracle WebDB can automatically install and configure its own WebDB lightweight listener to accommodate user browser requests. To accommodate the variety of Web architectures that exist in today's intranet, Oracle WebDB also supports third-party Web servers, such as Apache, through a CGI interface.

WebDB Portal takes advantage of Oracle's web-based login server architecture for user authentication. The login server provides a single, enterprise-wide authentication mechanism that allows users to identify themselves securely to multiple applications through a single authentication step (e.g.,username/password or certificate exchange). The portal administrator can choose how users are authenticated; either against a table of user accounts managed by the login server or a list of users defined in an LDAP directory.

Administrators can configure WebDB Portal to support single sign on to applications accessed as a portlet. Two single-sign-on methods are available: partner application and external application. Partner applications delegate authentication to the login server and must establish and maintain session information for each user. External applications maintain their own authentication mechanisms: the login server simply facilitates a login to the application in behalf of the user, when required, and maintains the user' s credentials in a password store.

MAINTAIN A HIGH QUALITY OF SERVICE AND APPLICATION PERFORMANCE

Detailed usage statistics help portal administrators to maintain a high quality of service . A set of pre-built reports display performance and security histories, down to the browser type and IP address of the end user. Administrators can easily find out when the peak load times are, what modules were accessed the most, which people used the system during a given time, and performance characteristics of specific queries. In addition to these pre-built reports, administrators can also perform ad-hoc queries against logged information on end users, pages and components to create their own custom reports.

DEPLOY TO A GLOBAL COMMUNITY

Oracle WebDB supports deployment to a global community. The text contained in WebDB Portal wizards, dialog boxes, messages and help text have been translated into over 20 languages. Users who access WebDB Portal with non-English browser language settings will see administration, editing, and all other non-user defined features in their preferred language, if available. In addition, WebDB Portal's self-service publishing features allows information owners to load multiple translations of their content items. Users viewing these items will see the translation which matches their browser language setting, if available.

PRODUCT FEATURE LIST

SEAMLESSLY ACCESS ENTERPRISE INFORMATION SOURCES

- Extensible framework represents all information sources using a re-usable information component called "portlets".
- Create portlets to access nearly any type of Web accessible information; access can include password-protected sources.
- Portlets provide granular, secure, and standardized access and are implemented as a live area of HTML or XML/XSL within a portal page.
- Use a library of pre-existing portlets to support web publishing, application development and portal administration; additional portlets available from WebDB partners.
- Information source "providers" define how their application is exposed using one or more portlets.
- Implement portlet and portlet provider procedures as PL/SQL packages or Java servlets.
- Implement portlet as a simple wrapper call or incorporate UI and logic within the portlet procedures.

CREATE PERSONAL VIEWS OF ENTERPRISE APPLICATIONS AND INFORMATION

- Page creation engine dynamically assembles and formats portlets; users and administrators create and administer portal pages
- Create one or more regions on portal page to contain portlets; add one or more portlets to each region
- Use portal pages styles and layouts to define the appearance of the portal page and behavior of portlets on the page; limit to approved styles or allow users to create their own styles
- Govern access to content and applications using portlet and portal page security privileges; pages can be private, public or restricted to specific users and user groups.
- Create pages for limited/personal use or customize public or global pages with personal preferences

SECURELY ORGANIZE AND PUBLISH CONTENT

- Self-service, browser-based content editing, document publishing, and file uploads
- Create items from a wide range of informational content including single/multiple files, simple text, URLs, image maps, PL/SQL procedures, and dynamic application components.
- Use pre-defined item "category" and "perspective" attributes to provide a powerful classification mechanism for grouping similar or related items.
- Define custom item types and custom attributes for additional flexibility
- Use item version control, check-in/check-out, publish on approval, and expiration to support collaborative document creation and ease content management tasks
- Contain items within folders; expose to portal as a portlet
- Assign various levels of access to content (no access to full ownership rights); enforce at item or folder level
- Control folder display using folder styles; select folder layout and apply display rules to items contained within folder regions
- Automatic indexing of published items in search engine to make finding published items very easy

SEAMLESSLY PUBLISH YOUR DATA ON THE INTRANET

- Wizard-based, declarative design environment for defining an application data model and building dynamic HTML application components.
- No scripting required in-depth knowledge of SQL syntax is required; use wizards as guidance or use customized SQL statements.
  - Form Wizard—forms based access to tables, views, and stored procedures.
  - Report Wizard—parameterized reports from tables and views.
  - Chart Wizard—parameterized HTML-based charts from tables and views.
  - Menu Wizard—menus of hypertext links, optionally protected by database roles.
  - Frame Driver Wizard—queries based on LOVs that drive the contents of a frame.
  - Calendar Wizard—parameterized calendars that display database information by date.
  - Hierarchy, Organizational Chart Wizard—parameterized parent-child relationships with drill-up and

drill-down capabilities.

- Expose components to portal as a portlet
- Use explorer tool to easily access, take action (browsing, granting privileges, exporting and deleting) and keep track of components and database objects.
- Integration with Oracle Reports 6i

UNIVERSALLY ACCESSIBLE WITH LOW TOTAL COST OF OWNERSHIP

- Portal access, development, deployment, administration, and configuration performed through a standard Web browser (Netscape Navigator and Microsoft Internet Explorer).
- No additional client-side software is required.
- Leverages features in Oracle 8i for reliability, availability, and scalability
- Runs inside the Oracle database; offers the ultimate flexibility in hardware platforms and architecture options

INTUITIVE INSTALLATION AND ADMINISTRATION

- Decentralized, yet secure portal management; centralized control of the infrastructure.
- Fully portlet enabled portal administration.

HIGHLY FLEXIBLE, SCALEABLE AND SECURE ARCHITECTURE

- Lightweight Oracle WebDB listener provides a simple, scalable portal deployment mechanism.
- Optional CGI script provides compatibility with major web server software.
- Single authentication mechanism via web-based log-in server architecture; LDAP support
- Single sign-on to partner and external applications

MAINTAIN A HIGH QUALITY OF SERVICE AND APPLICATION PERFORMANCE

- Isolate system bottlenecks and ensure a high quality of service.
- Keeps detailed logs about browser types, access times, search engine effectiveness, etc.

- Perform ad-hoc queries on activity log.

DEPLOY TO A GLOBAL COMMUNITY

- Supports over 20 languages including: Brazilian Portuguese, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Latin American Spanish, Norwegian, Polish, Romanian, Russian, Simplified Chinese, Slovak, Spanish, Swedish, Traditional Chinese, and Thai.

- Self-service publishing features allows information owners to load multiple translations of their content items.

COMPREHENSIVE ONLINE HELP

- Browser-based online help navigation.

- Context-sensitive answers and detailed documentation.

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